Environmental Profile

This LCA is calculated according to: ISO 14044, ISO 14040 and EN 15804

Ecochain v3.5.80

Product:	3043940 - Wafix PP Adaptor WT 50
Unit:	1 piece
Manufacturer:	Wavin - PL -Buk - Extra products

Wafix PP is a versatile, uncomplicated solution for your indoor drainage. You can easily install the impact-resistant pipes even in frost. Their excellent chemical resistance makes them ideal for cast-in applications.

LCA standard:	EN15804+A2 (2019)
Standard database:	Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified:	Yes
Issue date:	08-06-2023
End of validity:	08-06-2028
Verifier:	Martijn van Hövell - SGS Search

This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard

The LCA background information and project dossier have been registered in the online Ecochain application in the account Wavin - PL -Buk - Extra products (2020). (☑ = module declared, MND = module not declared).

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
☑	☑	☑	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	☑	☑	☑	☑

Product stage

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
C4 Disposal

Benefits and loads beyond the system boundaries

D Reuse- Recovery- Recycling- potential

Environmental impacts and parameters

GWP-total = EF EN15804+A2 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF EN15804+A2 Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF EN15804+A2 Climate Change - Land use and LU change [kg CO2 eq]; **ODP** = EF Ozone depletion [kg CFC11 eq]; **AP** = EF Acidification [mol H+ eq]; **EP-fw** = EF Eutrophication, freshwater [kg P eq]; **EP-m** = EF Eutrophication, marine [kg N eq]; **EP-T** = EF Eutrophication, terrestrial [mol N eq]; **POCP** = EF Photochemical ozone formation [kg NMVOC eq]; **ADP-mm** = EF Resource use, minerals and metals [kg Sb eq]; **ADP-f** = EF Resource use, fossils [MJ]; **WDP** = EF Water use [m3 depriv.]; **PM** = EF Particulate matter [disease inc.]; **IR** = EF Ionising radiation [kBq U-235 eq]; **ETP-fw** = EF Ecotoxicity, freshwater [CTUe]; **HTP-c** = EF Human toxicity, cancer [CTUh]; **HTP-nc** = EF Human toxicity, non-cancer [CTUh]; **SQP** = EF Land use [Pt]; **PERE** = Use of renewable primary energy excluding renewable primary energy resources used as raw materials [MJ]; **PERM** = Use of renewable primary energy resources used as raw materials [MJ]; **PERT** = Total use of renewable primary energy resources [MJ]; **PENRE** = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials [MJ]; **PENRM** = Use of non-renewable primary energy resources used as raw materials [MJ]; **PENRT** = Total use of non-renewable primary energy resources [MJ]; **PET** = Total energy [MJ]; **SM** = Use of secondary material [kg]; **RSF** = Use of renewable secondary fuels [MJ]; **NRSF** = Use of non-renewable secondary fuels [MJ]; **FW** = Use of net fresh water [m3]; **HWD** = Hazardous waste disposed [kg]; **NHWD** = Non-hazardous waste disposed [kg]; **RWD** = Radioactive waste disposed [kg]; **CRU** = Components for re-use [kg]; **MFR** = Materials for recycling [kg]; **MER** = Materials for energy recovery [kg]; **EE** = Exported energy [MJ]; **EET** = Exported energy thermic [MJ]; **EEE** = Exported energy electric [MJ]

Statement of Confidentiality

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.03E-1	6.00E-4	1.45E-4	1.03E-1	1.08E-3	1.38E-1	5.94E-4	-6.89E-2	1.74E-1
GWP-f	kg CO2 eq	1.53E-1	5.99E-4	1.46E-4	1.53E-1	1.08E-3	8.37E-2	5.94E-4	-7.78E-2	1.61E-1
GWP-b	kg CO2 eq	-5.01E-2	3.64E-7	-1.54E-6	-5.01E-2	6.53E-7	5.40E-2	5.43E-7	9.04E-3	1.29E-2
GWP-luluc	kg CO2 eq	1.69E-4	2.12E-7	1.49E-7	1.69E-4	3.81E-7	5.65E-6	1.08E-8	-1.02E-4	7.31E-5
ODP	kg CFC11 eq	1.62E-8	1.38E-10	8.26E-12	1.64E-8	2.48E-10	9.81E-10	1.54E-11	-6.45E-9	1.11E-8
AP	mol H+ eq	7.16E-4	3.41E-6	1.47E-6	7.21E-4	6.12E-6	4.30E-5	3.72E-7	-2.31E-4	5.40E-4
EP-fw	kg P eq	4.42E-6	4.93E-9	8.24E-9	4.43E-6	8.85E-9	1.72E-7	4.92E-10	-1.75E-6	2.86E-6
EP-m	kg N eq	1.31E-4	1.22E-6	1.55E-7	1.32E-4	2.19E-6	1.39E-5	4.06E-7	-5.00E-5	9.88E-5
EP-T	mol N eq	1.45E-3	1.35E-5	1.85E-6	1.46E-3	2.41E-5	1.54E-4	1.50E-6	-5.68E-4	1.07E-3
POCP	kg NMVOC eq	5.94E-4	3.85E-6	6.28E-7	5.98E-4	6.90E-6	4.55E-5	5.56E-7	-2.13E-4	4.38E-4
ADP-mm	kg Sb eq	2.01E-5	1.55E-8	1.97E-8	2.01E-5	2.78E-8	1.46E-7	3.72E-10	-1.07E-6	1.92E-5
ADP-f	MJ	4.36E+0	9.20E-3	1.36E-3	4.37E+0	1.65E-2	1.08E-1	1.12E-3	-1.89E+0	2.60E+0
WDP	m3 depriv.	9.33E-2	2.82E-5	5.22E-5	9.34E-2	5.06E-5	2.35E-3	6.13E-6	-4.07E-2	5.51E-2
PM	disease inc.	8.14E-9	5.41E-11	9.08E-12	8.20E-9	9.71E-11	6.05E-10	7.71E-12	-2.95E-9	5.96E-9
IR	kBq U-235 eq	6.75E-3	4.02E-5	1.02E-6	6.79E-3	7.21E-5	3.48E-4	5.28E-6	-1.81E-3	5.41E-3
ETP-fw	CTUe	3.34E+0	7.47E-3	1.21E-2	3.36E+0	1.34E-2	2.01E-1	1.45E-3	-1.20E+0	2.37E+0
HTP-c	CTUh	9.65E-11	2.66E-13	6.17E-13	9.74E-11	4.77E-13	1.61E-11	2.88E-14	-3.29E-11	8.11E-11
HTP-nc	CTUh	1.91E-9	8.91E-12	1.57E-11	1.93E-9	1.60E-11	2.13E-10	7.32E-13	-4.41E-10	1.72E-9
SQP	Pt	4.99E+0	7.87E-3	2.24E-3	5.01E+0	1.41E-2	8.20E-2	2.87E-3	-5.29E+0	-1.89E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.16E+0	1.32E-4	2.40E-2	1.19E+0	2.37E-4	5.08E-3	4.62E-5	-8.61E-1	3.33E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.16E+0	1.32E-4	2.40E-2	1.19E+0	2.37E-4	5.08E-3	4.62E-5	-8.61E-1	3.33E-1
PENRE	MJ	4.67E+0	9.77E-3	1.44E-3	4.68E+0	1.75E-2	1.16E-1	1.19E-3	-2.05E+0	2.76E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.67E+0	9.77E-3	1.44E-3	4.68E+0	1.75E-2	1.16E-1	1.19E-3	-2.05E+0	2.76E+0
PET	MJ	5.83E+0	9.90E-3	2.55E-2	5.87E+0	1.78E-2	1.21E-1	1.24E-3	-2.91E+0	3.10E+0
SM	kg	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0
FW	m3	1.97E-3	1.04E-6	1.46E-6	1.97E-3	1.87E-6	1.17E-4	1.39E-6	-8.13E-4	1.28E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.87E-6	2.35E-8	2.73E-13	1.90E-6	4.22E-8	2.21E-7	1.36E-9	-1.30E-6	8.58E-7
NHWD	kg	1.33E-2	5.70E-4	1.05E-6	1.39E-2	1.02E-3	6.55E-3	4.93E-3	-4.12E-3	2.23E-2
RWD	kg	8.09E-6	6.26E-8	1.10E-13	8.15E-6	1.12E-7	4.52E-7	7.36E-9	-1.87E-6	6.85E-6
CRU	kg	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0	0
EE	MJ	0	0	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0	0	0

Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
https://www.ecochain.com
+31 20 3035 777